JOURNAL OF FLUID MECHANICS

INDEX OF AUTHORS OF PAPERS

&

INDEX OF BOOKS REVIEWED

IN VOLUMES 401–420

25 December 1999–10 October 2000

CAMBRIDGE
UNIVERSITY PRESS

The JOURNAL OF FLUID MECHANICS exists for the publication of theoretical and experimental investigations of all aspects of the mechanics of fluids.

FOUNDING EDITOR **Prof. G. K. Batchelor**

EDITORS

Prof. S. H. Davis, Department of Engineering Sciences and Applied Mathematics, Northwestern University, Evanston, IL 60208, USA. *FAX* 1 847 491 2178; sdavis@casbah.it.northwestern.edu

Prof. T. J. Pedley, Department of Applied Mathematics and Theoretical Physics, University of Cambridge, Silver Street, Cambridge CB3 9EW, UK. *FAX* 44 1223 337918; T.J.Pedley@damtp.cam.ac.uk

EDITORIAL ASSISTANT

Dr Linda Drath, DAMTP, University of Cambridge, Silver Street, Cambridge CB3 9EW, UK
Telephone 44 1223 337888; *FAX* 44 1223 337918; jfm@damtp.cam.ac.uk

ASSOCIATE EDITORS

Prof. R. J. Adrian, Department of Theoretical and Applied Mechanics, University of Illinois, 104 South Wright Street, Urbana, IL 61801-2935, USA. *FAX* 1 217 244 5707; r-adrian@uiuc.edu

Prof. J. F. Brady, Department of Chemical Engineering 210–41, California Institute of Technology, Pasadena, CA 91125, USA. *FAX* 1 626 568 8743; jfbrady-jfm@cheme.caltech.edu

Prof. F. H. Busse, Institute of Physics, University of Bayreuth, D-95440 Bayreuth, Germany. *FAX* 49 921 552999; busse@uni-bayreuth.de

Dr P. A. Davidson, Department of Engineering, University of Cambridge, Trumpington Street, Cambridge CB2 1PZ, UK. *FAX* 44 1223 332662; pad3@eng.cam.ac.uk

Prof. P. Huerre, Hydrodynamics Laboratory-LadHyX, Ecole Polytechnique, F-91128 Palaiseau, France. *FAX* 33 1 69 33 30 30; huerre.jfm@ladhyx.polytechnique.fr

Prof. S. K. Lele, Departments of Aeronautics & Astronautics and Mechanical Engineering, Durand Building, Stanford University, Stanford, CA 94305-4035, USA. *FAX* 1 415 725 3377; lele@leland.stanford.edu

Prof. P. S. Marcus, Mail Code 1740, Department of Mechanical Engineering, University of California, Berkeley, CA 94720, USA. *FAX* 1 510 642 6163; phil@cfd.me.berkeley.edu

Prof. C. C. Mei, Department of Civil and Environmental Engineering, Massachusetts Institute of Technology, Cambridge, MA 02139, USA. *FAX* 1 617 253 6300; ccmei@mit.edu

Prof. M. J. Miksis, Department of Engineering Sciences and Applied Mathematics, Northwestern University, Evanston, IL 60208-3125, USA. *FAX* 1 847 491 2178; miksis@northwestern.edu

Dr N. Peake, DAMTP, University of Cambridge, Silver Street, Cambridge CB3 9EW, UK. *FAX* 44 1223 337918; N.Peake@damtp.cam.ac.uk

Prof. D. H. Peregrine, School of Mathematics, University of Bristol, Bristol BS8 1TW, UK. *FAX* 44 117 928 7999; d.h.peregrine@bristol.ac.uk

Prof. K. R. Sreenivasan†, Mason Laboratory, PO Box 208286, Yale University, New Haven, CT 06520, USA. *FAX* 1 203 432 4351; k.sreenivasan@yale.edu

Prof. P. H. Steen, School of Chemical Engineering, Cornell University, Olin Hall, Ithaca, NY 14853-5201, USA. *FAX* 1 607 255 9166; phs-jfm@cheme.cornell.edu

Prof. H. A. Stone, Division of Engineering & Applied Sciences, Harvard University, Cambridge, MA 02138, USA. *FAX* 1 617 495 9837; has-jfm@stokes.harvard.edu

Dr M. G. Worster, DAMTP, University of Cambridge, Silver Street, Cambridge CB3 9EW, UK. *FAX* 44 1223 337918; grae@esc.cam.ac.uk

Prof. W. R. Young, Scripps Institution of Oceanography, University of California, San Diego, Mail Code 0213, La Jolla, CA 92093, USA. *FAX* 1 858 534 9820; wryoung@ucsd.edu

BOOK REVIEW EDITOR

Dr J. M. Rallison, DAMTP, University of Cambridge, Silver Street, Cambridge CB3 9EW, UK. *FAX* 44 1223 337918; J.M.Rallison@damtp.cam.ac.uk

† Editor handling fast-track papers.

INDEX OF AUTHORS OF PAPERS

For the purpose of determining place in the alphabetical order, a name is regarded as beginning with the first capital letter of the main or family name. Subsequent spaces, hyphens or apostrophes in the main name are disregarded. Names prefixed by Mc are ordered as if the prefix were Mac.

Abou, B., Wesfreid, J.-E. & Roux, S.
The normal field instability in ferrofluids: hexagon–square transition mechanism and wavenumber selection, **416**, 2000, 217–237

Adams, N. A.
Direct simulation of the turbulent boundary layer along a compression ramp at $M = 3$ and $Re_\theta = 1685$, **420**, 2000, 47–83

Ahmadi, G. *See* Zhang & Ahmadi

Akhatov, I. Sh. *See* Nigmatulin, Akhatov, Vakhitova & Lahey

Akhavan, R., Ansari, A., Kang, S. & Mangiavacchi, N.
Subgrid-scale interactions in a numerically simulated planar turbulent jet and implications for modelling, **408**, 2000, 83–120

Alam, M. & Sandham, N. D.
Direct numerical simulation of 'short' laminar separation bubbles with turbulent reattachment, **410**, 2000, 1–28

Alemany, A., Marty, Ph., Plunian, F. & Soto, J.
Experimental investigation of dynamo effect in the secondary pumps of the fast breeder reactor Superphenix, **403**, 2000, 263–276

Alisse, J.-R. & Sidi, C.
Experimental probability density functions of small-scale fluctuations in the stably stratified atmosphere, **402**, 2000, 137–162

Allen, J. J. & Chong, M. S.
Vortex formation in front of a piston moving through a cylinder, **416**, 2000, 1–28

Alvelius, K. & Johansson, A. V.
LES computations and comparison with Kolmogorov theory for two-point pressure–velocity correlations and structure functions for globally anisotropic turbulence, **403**, 2000, 23–36

Amaratunga, S. R., Tutty, O. R. & Roberts, G. T.
High-speed flow with discontinuous surface catalysis, **420**, 2000, 325–359

Ansari, A. *See* Akhavan, Ansari, Kang & Mangiavacchi

Antonia, R. A. *See* Zhou & Antonia

Arakeri, J. H., Das, D. & Srinivasan, J.
Bifurcation in a buoyant horizontal laminar jet, **412**, 2000, 61–73

Aref, H. A. *See* Boyland, Aref & Stremler

Arendt, S. & Fritts, D. C.
Acoustic radiation by ocean surface waves, **415**, 2000, 1–21

Armfield, S. W. *See* Javam, Imberger & Armfield; Lin & Armfield

Azaiez, J.
Linear stability of free shear flows of fibre suspensions, **404**, 2000, 179–209

Baek, S.-J. & Sung, H. J.
Quasi-periodicity in the wake of a rotationally oscillating cylinder, **408**, 2000, 275–300

Bakunin, J. *See* Svendsen, Veeramony, Bakunin & Kirby

Balmforth, N. J., Burbidge, A. S., Craster, R. V., Salzig, J. & Shen, A.
Visco-plastic models of isothermal lava domes, **403**, 2000, 37–65

Bankoff, S. G. *See* Joo, Davis & Bankoff; Panzarella, Davis & Bankoff

Barenblatt, G. I., Chorin, A. J. & Prostokishin, V. M.
Self-similar intermediate structures in turbulent boundary layers at large Reynolds numbers, **410**, 2000, 263–283

Barenghi, C. F. *See* Henderson & Barenghi

Barleon, L. *See* Burr, Barleon, Müller & Tsinober

Barnes, D. R. & Kerswell, R. R.
New results in rotating Hagen–Poiseuille flow, **417**, 2000, 103–126

Bec, J., Frisch, U. & Khanin, K.
Kicked Burgers turbulence, **416**, 2000, 239–267

Becht, R. *See* Knight, Gnedin, Becht & Zheltovodov

Benilov, E. S.
The dynamics of a near-surface vortex in a two-layer ocean on the beta-plane, **420**, 2000, 277–299

Bent, P. H. *See* Guo, Joshi, Bent & Yamamoto

Berger, S. A. *See* Speziale, Younis & Berger

Bergeron, K., Coutsias, E. A., Lynov, J. P. & Nielsen, A. H.
Dynamical properties of forced shear layers in an annular geometry, **402**, 2000, 255–289

Bertolotti, F. P. *See* Koch, Bertolotti, Stolte & Hein

Biello, J. A., Saldanha, K. I. & Lebovitz, N. R.
Instabilities of exact, time-periodic solutions of the incompressible Euler equations, **404**, 2000, 269–287

Biggs, N. R. T., Morales Maqueda, M. A. & Willmott, A. J.

Polynya flux model solutions incorporating a parameterization for the collection thickness of consolidated new ice, **408**, 2000, 179–204

Billant, P. & Chomaz, J.-M.
Experimental evidence for a new instability of a vertical columnar vortex pair in a strongly stratified fluid, **418**, 2000, 167–188
Theoretical analysis of the zigzag instability of a vertical columnar vortex pair in a strongly stratified fluid, **419**, 2000, 29–63
Three-dimensional stability of a vertical columnar vortex pair in a stratified fluid, **419**, 2000, 65–91

Billingham, J. *See* Cooper, Billingham & King

Blondeaux, P. *See* Scandura, Vittori & Blondeaux

Blyth, M. G. & Mestel, A. J.
Steady flow in a dividing pipe, **401**, 1999, 339–364

Bokhove, O.
On hydrostatic flows in isentropic coordinates, **402**, 2000, 291–310

Bowles, R. G. A. & Smith, F. T.
Lifting multi-blade flows with interaction, **415**, 2000, 203–226

Boyland, P. L., Aref, H. A. & Stremler, M. A.
Topological fluid mechanics of stirring, **403**, 2000, 277–304

Brady, J. F. *See* Foss & Brady

Brenner, H. *See* Haber, Butler, Brenner, Emanuel & Tsuda

Brio, M. *See* Hunter & Brio

Brøns, M., Voigt, L. K. & Sørensen, J. N.
Streamline topology of steady axisymmetric vortex breakdown in a cylinder with co- and counter-rotating end-covers, **401**, 1999, 275–292

Brownjohn, D. P. *See* Rucklidge, Weiss, Brownjohn, Matthews & Proctor

Büchel, P. *See* Huke, Lücke, Büchel & Jung

Bühler, L. *See* Mück, Günther, Müller & Bühler

Bühler, O.
On the vorticity transport due to dissipating or breaking waves in shallow-water flow, **407**, 2000, 235–263

Buldakov, E. V., Chernyshenko, S. I. & Ruban, A. I.
On the uniqueness of steady flow past a rotating cylinder with suction, **411**, 2000, 213–232

Burbidge, A. S. *See* Balmforth, Burbidge, Craster, Salzig & Shen

Burcham, C. L. & Saville, D. A.
The electrohydrodynamic stability of a liquid bridge: microgravity experiments on a bridge suspended in a dielectric gas, **405**, 2000, 37–56

Burr, U., Barleon, L., Müller, U. & Tsinober, A.
Turbulent transport of momentum and heat in magnetohydrodynamic rectangular duct flow with strong sidewall jets, **406**, 2000, 247–279

Butler, J. P. *See* Haber, Butler, Brenner, Emanuel & Tsuda

Cadot, O. & Kumar, S.
Experimental characterization of viscoelastic effects on two- and three-dimensional shear instabilities, **416**, 2000, 151–172

Camhi, E., Meiburg, E. & Ruith, M.
Miscible rectilinear displacements with gravity override. Part 2. Heterogeneous porous media, **420**, 2000, 259–276

Cantwell, B. J. *See* Chacin & Cantwell

Cardoso, S. S. S. *See* Rogerson & Cardoso

Carlsson, F. *See* Härtel, Carlsson & Thunblom

Casalis, G. *See* Robinet, Gressier, Casalis & Moschetta

Castillo, J. *See* Torres, Hanazaki, Ochoa, Castillo & Van Woert

Caton, F., Janiaud, B. & Hopfinger, E. J.
Stability and bifurcations in stratified Taylor–Couette flow, **419**, 2000, 93–124

Caulfield, C. P. & Peltier, W. R.
The anatomy of the mixing transition in homogeneous and stratified free shear layers, **413**, 2000, 1–47

Ceniceros, H. D. & Hou, T. Y.
The singular perturbation of surface tension in Hele-Shaw flows, **409**, 2000, 251–272

Chacin, J. M. & Cantwell, B. J.
Dynamics of a low Reynolds number turbulent boundary layer, **404**, 2000, 87–115

Champy-Doutreleau, I., Euvrard, D. & Hazard, C.
Perturbation of low-frequency underwater acoustics by gravity waves, **411**, 2000, 305–324

Charru, F. & Hinch, E. J.
'Phase diagram' of interfacial instabilities in a two-layer Couette flow and mechanism of the long-wave instability, **414**, 2000, 195–223

Chassignet, E. P. *See* Pratt, Helfrich & Chassignet

Chauhan, A., Maldarelli, C., Papageorgiou, D. T. & Rumschitzki, D. S.
Temporal instability of compound threads and jets, **420**, 2000, 1–25

Cheatham, S. & Matalon, M.
A general asymptotic theory of diffusion flames with application to cellular instability, **414**, 2000, 105–144

Chen, F. *See* Chung & Chen

Chernyshenko, S. I. *See* Buldakov, Chernyshenko & Ruban

Choboter, P. F. & Swaters, G. E.

On the baroclinic instability of axisymmetric rotating gravity currents with bottom slope, **408**, 2000, 149–177
Choi, H. *See* Min & Choi
Chomaz, J.-M. *See* Billant & Chomaz
Chong, M. S. *See* Allen & Chong
Chorin, A. J. *See* Barenblatt, Chorin & Prostokishin
Chung, C. A. & Chen, F.
Onset of plume convection in mushy layers, **408**, 2000, 53–82
Convection in directionally solidifying alloys under inclined rotation, **412**, 2000, 93–123
Citriniti, J. H. & George, W. K.
Reconstruction of the global velocity field in the axisymmetric mixing layer utilizing the proper orthogonal decomposition, **418**, 2000, 137–166
Clarke, S. R. *See* Johnson & Clarke
Clarke, S. R. & Grimshaw, R. H. J.
Weakly nonlinear internal wave fronts trapped in contractions, **415**, 2000, 323–345
Coleman, G. N., Kim, J. & Spalart, P. R.
A numerical study of strained three-dimensional wall-bounded turbulence, **416**, 2000, 75–116
Coleman, S. E. & Fenton, J. D.
Potential-flow instability theory and alluvial stream bed forms, **418**, 2000, 101–117
Colinet, P. *See* Rednikov, Colinet, Velarde & Legros
Collins, L. R. *See* Reade & Collins; Ulitsky & Collins
Colucci, P. J. *See* Jaberi, Colucci, James, Givi & Pope
Cooper, A. J. & Peake, N.
Trapped acoustic modes in aeroengine intakes with swirling flow, **419**, 2000, 151–175
Cooper, R. J., Billingham, J. & King, A. C.
Flow and reaction in solid oxide fuel cells, **411**, 2000, 233–262
Couch, G. G. *See* Ethier, Prakash, Steinman, Leask, Couch & Ojha
Couder, Y. *See* Lajeunesse & Couder
Coutsias, E. A. *See* Bergeron, Coutsias, Lynov & Nielsen
Cox, S. M. & Matthews, P. C.
Instability of rotating convection, **403**, 2000, 153–172
Craster, R. V. *See* Balmforth, Burbidge, Craster, Salzig & Shen
Crowdy, D. G.
Hele-Shaw flows and water waves, **409**, 2000, 223–242

Dahm, W. J. A. *See* Tacina & Dahm
Dalziel, S. B. *See* Eames & Dalziel
Das, D. *See* Arakeri, Das & Srinivasan
Davidson, P. A.
An energy criterion for the linear stability of conservative flows, **402**, 2000, 329–348
Davis, S. H. *See* Joo, Davis & Bankoff; Panzarella, Davis & Bankoff
Davis, S. H. & Pedley, T. J.
Editorial, **415**, 2000, i
Day, R. F. & Stone, H. A.
Lubrication analysis and boundary integral simulations of a viscous micropump, **416**, 2000, 197–216
Dennis, S. C. R., Nguyen, P. & Kocabiyik, S.
The flow induced by a rotationally oscillating and translating circular cylinder, **407**, 2000, 123–143
De Silva, I. P. D. *See* Ivey, Winters & De Silva
Dimotakis, P. E.
The mixing transition in turbulent flows, **409**, 2000, 69–97
See also Slessor, Zhuang & Dimotakis
Dowling, A. P. *See* Kuo & Dowling
Du, Y.-B. & Tong, P.
Turbulent thermal convection in a cell with ordered rough boundaries, **407**, 2000, 57–84
Duck, P. W. *See* Hewitt & Duck
Duffy, B. R. *See* Wilson, Hunt & Duffy

Eames, I. & Dalziel, S. B.
Dust resuspension by the flow around an impacting sphere, **403**, 2000, 305–328
Eaton, J. A. *See* MacManus & Eaton
Eaton, J. K. *See* Elkins & Eaton
Eggers, J., Lister, J. R. & Stone, H. A.
Coalescence of liquid drops, **401**, 1999, 293–310
Eiff, O. S. *See* Gheusi, Stein & Eiff
Elcrat, A., Fornberg, B., Horn, M. & Miller, K.
Some steady vortex flows past a circular cylinder, **409**, 2000, 13–27
Elkins, C. J. & Eaton, J. K.
Turbulent heat and momentum transport on a rotating disk, **402**, 2000, 225–253
Emanuel, I. *See* Haber, Butler, Brenner, Emanuel & Tsuda
Engevik, L.
A note on the instabilities of a horizontal shear flow with a free surface, **406**, 2000, 337–346
Ethier, C. R., Prakash, S., Steinman, D. A., Leask, R. L., Couch, G. G. & Ojha, M.
Steady flow separation patterns in a 45 degree junction, **411**, 2000, 1–38
Euvrard, D. *See* Champy-Doutreleau, Euvrard & Hazard
Evers, I. & Peake, N.
Noise generation by high-frequency gusts interacting with an airfoil in transonic flow, **411**, 2000, 91–130

Falle, S. A. E. G. *See* Sharpe & Falle

Faltinsen, O. M., Rognebakke, O. F., Lukovsky, I. A. & Timokha, A. N.
Multidimensional modal analysis of nonlinear sloshing in a rectangular tank with finite water depth, **407**, 2000, 201–234
Fan, Y., Tanner, R. I. & Phan-Thien, N.
A numerical study of viscoelastic effects in chaotic mixing between eccentric cylinders, **412**, 2000, 197–225
Feliks, Y.
An analytical model of gravity currents in a stable atmosphere, **420**, 2000, 27–46
Fenton, J. D. *See* Coleman & Fenton
Ferziger, J. H. *See* Shih, Koseff, Ferziger & Rehmann
Ffowcs Williams, J. E. & Möhring, W.
Control action for stabilizing free shear layers, **404**, 2000, 27–46
Finnigan, T. D. & Ivey, G. N.
Convectively driven exchange flow in a stratified sill-enclosed basin, **418**, 2000, 313–338
Flagan, R. C. *See* Phares, Smedley & Flagan
Flohr, P. & Vassilicos, J. C.
A scalar subgrid model with flow structure for large-eddy simulations of scalar variances, **407**, 2000, 315–349
Floryan, J. M. *See* Hamed & Floryan
Fornberg, B. *See* Elcrat, Fornberg, Horn & Miller
Foss, D. R. & Brady, J. F.
Self-diffusion in sheared suspensions by dynamic simulation, **401**, 1999, 243–274
Structure, diffusion and rheology of Brownian suspensions by Stokesian Dynamics simulation, **407**, 2000, 167–200
Foster, M. R.
The effect of rotation on vertical Bridgman growth at large Rayleigh number, **409**, 2000, 185–221
Fountain, G. O., Khakhar, D. V., Mezić, I. & Ottino, J. M.
Chaotic mixing in a bounded three-dimensional flow, **417**, 2000, 265–301
Frachebourg, L. & Martin, Ph. A.
Exact statistical properties of the Burgers equation, **417**, 2000, 323–349
Frei, Ch., Lüscher, P. & Wintermantel, E.
Thread-annular flow in vertical pipes, **410**, 2000, 185–210
Frisch, U. *See* Bec, Frisch & Khanin
Fritts, D. C. *See* Arendt & Fritts
Fujii, S. *See* Kyotoh, Fujii & To
Fukumoto, Y. & Moffatt, H. K.
Motion and expansion of a viscous vortex ring. Part 1. A higher-order asymptotic formula for the velocity, **417**, 2000, 1–45
Fyrillas, M. M.
Advection–dispersion mass transport associated with a non-aqueous-phase liquid pool, **413**, 2000, 49–63
George, W. K. *See* Citriniti & George
Gerbeth, G. *See* Priede & Gerbeth
Gerkema, T.
A linear stability analysis of tidally generated sand waves, **417**, 2000, 303–322
Gharib, M. *See* Lang & Gharib; Shusser & Gharib
Gheusi, F., Stein, J. & Eiff, O. S.
A numerical study of three-dimensional orographic gravity-wave breaking observed in a hydraulic tank, **410**, 2000, 67–99
Ghosal, S. & Vervisch, L.
Theoretical and numerical study of a symmetrical triple flame using the parabolic flame path approximation, **415**, 2000, 227–260
Givi, P. *See* Jaberi, Colucci, James, Givi & Pope
Gladstone, C. & Woods, A. W.
On the application of box models to particle-driven gravity currents, **416**, 2000, 187–195
Glazman, R. E. *See* Weichman & Glazman
Gnedin, M. *See* Knight, Gnedin, Becht & Zheltovodov
Gobbi, M. F., Kirby, J. T. & Wei, G.
A fully nonlinear Boussinesq model for surface waves. Part 2. Extension to $O(kh)^4$, **405**, 2000, 181–210
Gordeyev, S. V. & Thomas, F. O.
Coherent structure in the turbulent planar jet. Part 1. Extraction of proper orthogonal decomposition eigenmodes and their self-similarity, **414**, 2000, 145–194
Gorshkov, K. A., Ostrovsky, L. A. & Soustova, I. A.
Perturbation theory for Rankine vortices, **404**, 2000, 1–25
Govardhan, R. & Williamson, C. H. K.
Modes of vortex formation and frequency response of a freely vibrating cylinder, **420**, 2000, 85–130
Govindarajan, R. & Narasimha, R.
Transition delay by surface heating: a zonal analysis for axisymmetric bodies, **418**, 2000, 77–100
Greenslade, M. D.
Drag on a sphere moving horizontally in a stratified fluid, **418**, 2000, 339–350
Grega, L. M. *See* Hsu, Grega, Leighton & Wei
Grésillon, D. *See* Honoré & Grésillon
Gressier, J. *See* Robinet, Gressier, Casalis & Moschetta
Grimshaw, R. H. J. *See* Clarke & Grimshaw
Grossmann, S. & Lohse, D.
Scaling in thermal convection: a unifying theory, **407**, 2000, 27–56
Grotberg, J. B. *See* Howell, Waters & Grotberg
Grue, J. *See* Huseby & Grue
Grue, J., Jensen, A., Rusås, P.-O. & Sveen, J. K.

Breaking and broadening of internal solitary waves, **413**, 2000, 181–217

Guarini, S. E., Moser, R. D., Shariff, K. & Wray, A.
Direct numerical simulation of a supersonic turbulent boundary layer at Mach 2.5, **414**, 2000, 1–33

Günther, C. *See* Mück, Günther, Müller & Bühler

Guo, Y. P.
Application of Ffowcs Williams/Hawkings equation to two-dimensional problems, **403**, 2000, 201–221

Guo, Y. P., Joshi, M. C., Bent, P. H. & Yamamoto, K. J.
Surface pressure fluctuations on aircraft flaps and their correlation with far-field noise, **415**, 2000, 175–202

Ha, J.-W. & Yang, S.-M.
Deformation and breakup of Newtonian and non-Newtonian conducting drops in an electric field, **405**, 2000, 131–156

Haber, S., Butler, J. P., Brenner, H., Emanuel, I. & Tsuda, A.
Shear flow over a self-similar expanding pulmonary alveolus during rhythmical breathing, **405**, 2000, 243–268

Hamed, M. & Floryan, J. M.
Marangoni convection. Part 1. A cavity with differentially heated sidewalls, **405**, 2000, 79–110
Marangoni convection. Part 2. A cavity subject to point heating, **405**, 2000, 111–129

Han, G., Tumin, A. & Wygnanski, I.
Laminar–turbulent transition in Poiseuille pipe flow subjected to periodic perturbation emanating from the wall. Part 2. Late stage of transition, **419**, 2000, 1–27

Hanazaki, H. *See* Torres, Hanazaki, Ochoa, Castillo & Van Woert

Hancock, P. E.
Low Reynolds number two-dimensional separated and reattaching turbulent shear flow, **410**, 2000, 101–122

Hardenberg, J. von, McWilliams, J. C., Provenzale, A., Shchepetkin, A. & Weiss, J. B.
Vortex merging in quasi-geostrophic flows, **412**, 2000, 331–353

Hart, J. E.
On the influence of centrifugal buoyancy on rotating convection, **403**, 2000, 133–151

Härtel, C., Carlsson, F. & Thunblom, M.
Analysis and direct numerical simulation of the flow at a gravity-current head. Part 2. The lobe-and-cleft instability, **418**, 2000, 213–229

Härtel, C., Meiburg, E. & Necker, F.
Analysis and direct numerical simulation of the flow at a gravity-current head. Part 1. Flow topology and front speed for slip and no-slip boundaries, **418**, 2000, 189–212

Hatcher, L., Hogg, A. J. & Woods, A. W.
The effects of drag on turbulent gravity currents, **416**, 2000, 297–314

Haynes, P. H. *See* Vanneste & Haynes

Haynes, T. S. & Reed, H. L.
Simulation of swept-wing vortices using nonlinear parabolized stability equations, **405**, 2000, 325–349

Hazard, C. *See* Champy-Doutreleau, Euvrard & Hazard

He, S. & Jackson, J. D.
A study of turbulence under conditions of transient flow in a pipe, **408**, 2000, 1–38

Healey, J. J. *See* Moresco & Healey

Heijst, G. J. F. van *See* Zavala Sansón & Heijst

Hein, S. *See* Koch, Bertolotti, Stolte & Hein

Helfrich, K. R. *See* Pratt, Helfrich & Chassignet

Henderson, K. L. & Barenghi, C. F.
The anomalous motion of superfluid helium in a rotating cavity, **406**, 2000, 199–219

Herring, J. R. *See* Kerr & Herring

Hewitt, R. E. & Duck, P. W.
Non-axisymmetric rotating-disk flows: nonlinear travelling-wave states, **413**, 2000, 287–316

Hills, C. P. & Moffatt, H. K.
Rotary honing: a variant of the Taylor paint-scraper problem, **418**, 2000, 119–135

Hinch, E. J. *See* Charru & Hinch

Ho, C.-M. *See* Leu & Ho

Hogg, A. J. *See* Hatcher, Hogg & Woods

Hollerbach, R. *See* Soward & Hollerbach

Hong, W.-L. & Walker, D. T.
Reynolds-averaged equations for free-surface flows with application to high-Froude-number jet spreading, **417**, 2000, 183–209

Honoré, C. & Grésillon, D.
Turbulence cascade and dynamical exchange between spatial scales, **411**, 2000, 187–211

Hopfinger, E. J. *See* Caton, Janiaud & Hopfinger

Horn, M. *See* Elcrat, Fornberg, Horn & Miller

Hornung, H. G.
Oblique shock reflection from an axis of symmetry, **409**, 2000, 1–12

Hou, T. Y. *See* Ceniceros & Hou

Howell, P. D., Waters, S. L. & Grotberg, J. B.
The propagation of a liquid bolus along a liquid-lined flexible tube, **406**, 2000, 309–335

Howison, S. D.
A note on the two-phase Hele-Shaw problem, **409**, 2000, 243–249

Howle, L. E.
The effect of boundary properties on controlled Rayleigh–Bénard convection, **411**, 2000, 39–58

Hsu, T. Y., Grega, L. M., Leighton, R. I. & Wei, T.
Turbulent kinetic energy transport in a corner formed by a solid wall and a free surface, **410**, 2000, 343–366
Huke, B., Lücke, M., Büchel, P. & Jung, Ch.
Stability boundaries of roll and square convection in binary fluid mixtures with positive separation ratio, **408**, 2000, 121–147
Hulscher, S. J. M. H. *See* Komarova & Hulscher
Hunt, J. C. R. *See* Miyazaki & Hunt; Nishimura & Hunt
Hunt, R. *See* Wilson, Hunt & Duffy
Hunter, J. K. & Brio, M.
Weak shock reflection, **410**, 2000, 235–261
Huppert, H. E. *See* Ungarish & Huppert
Huseby, M. & Grue, J.
An experimental investigation of higher-harmonic wave forces on a vertical cylinder, **414**, 2000, 75–103

Iida, T. *See* Kato, Iida & Mori
Imberger, J. *See* Javam, Imberger & Armfield
Ishida, T. *See* Kaneda & Ishida
Israeli, M. *See* Minkov, Ungarish & Israeli
Ivashneva, M. N. *See* Ivashnyov, Ivashneva & Smirnov
Ivashnyov, O. E., Ivashneva, M. N. & Smirnov, N. N.
Slow waves of boiling under hot water depressurization, **413**, 2000, 149–180
Ivey, G. N. *See* Finnigan & Ivey
Ivey, G. N., Winters, K. B. & De Silva, I. P. D.
Turbulent mixing in a sloping benthic boundary layer energized by internal waves, **418**, 2000, 59–76
Izumi, N. *See* Parker & Izumi
Izumi, N. & Parker, G.
Linear stability analysis of channel inception: downstream-driven theory, **419**, 2000, 239–262

Jaberi, F. A. *See* Livescu, Jaberi & Madnia
Jaberi, F. A., Colucci, P. J., James, S., Givi, P. & Pope, S. B.
Filtered mass density function for large-eddy simulation of turbulent reacting flows, **401**, 1999, 85–122
Jackson, J. D. *See* He & Jackson
Jacqmin, D.
Contact-line dynamics of a diffuse fluid interface, **402**, 2000, 57–88
James, S. *See* Jaberi, Colucci, James, Givi & Pope
Janiaud, B. *See* Caton, Janiaud & Hopfinger
Javam, A., Imberger, J. & Armfield, S. W.
Numerical study of internal wave–wave interactions in a stratified fluid, **415**, 2000, 65–87
Numerical study of internal wave–caustic and internal wave–shear interactions in a stratified fluid, **415**, 2000, 89–116
Jazayeri, S. A. & Li, X.
Nonlinear instability of plane liquid sheets, **406**, 2000, 281–308
Jensen, A. *See* Grue, Jensen, Rusås & Sveen
Jiang, Q. & Smith, R. B.
V-waves, bow shocks, and wakes in supercritical hydrostatic flow, **406**, 2000, 27–53
Jiménez, J.
Intermittency and cascades, **409**, 2000, 99–120
Johansson, A. V. *See* Alvelius & Johansson; Wallin & Johansson
Johnson, E. R. *See* Page & Johnson
Johnson, E. R. & Clarke, S. R.
Dispersive effects in Rossby-wave hydraulics, **401**, 1999, 27–54
Jones, C. A. & Roberts, P. H.
Convection-driven dynamos in a rotating plane layer, **404**, 2000, 311–343
Jones, C. A., Soward, A. M. & Mussa, A. I.
The onset of thermal convection in a rapidly rotating sphere, **405**, 2000, 157–179
Joo, S. W., Davis, S. H. & Bankoff, S. G.
A simple hydrodynamic model for transition boiling, **402**, 2000, 195–210
Joshi, M. C. *See* Guo, Joshi, Bent & Yamamoto
Joubert, P. N. *See* Nickels & Joubert
Julien, K., Knobloch, E. & Tobias, S. M.
Nonlinear magnetoconvection in the presence of strong oblique fields, **410**, 2000, 285–322
Jung, Ch. *See* Huke, Lücke, Büchel & Jung

Kalliadasis, S.
Nonlinear instability of a contact line driven by gravity, **413**, 2000, 355–378
Kamotani, Y., Ostrach, S. & Masud, J.
Microgravity experiments and analysis of oscillatory thermocapillary flows in cylindrical containers, **410**, 2000, 211–233
Kaneda, Y. & Ishida, T.
Supression of vertical diffusion in strongly stratified turbulence, **402**, 2000, 311–327
Kang, S. *See* Akhavan, Ansari, Kang & Mangiavacchi
Karamanos, G.-S. *See* Ma, Karamanos & Karniadakis
Karniadakis, G. E. *See* Ma, Karamanos & Karniadakis
Karsten, R. H. & Swaters, G. E.
Nonlinear effects in two-layer large-amplitude geostrophic dynamics. Part 1. The strong-beta case, **412**, 2000, 125–160
Nonlinear effects in two-layer large-amplitude geostrophic dynamics. Part 2. The weak-beta case, **412**, 2000, 161–196
Kassoy, D. R. *See* Zhao, Staab, Kassoy & Kirkkopru
Kato, M., Iida, T. & Mori, Y. H.

Drop formation behaviour of a hydrate-forming liquid in a water stream, **414**, 2000, 367–378

Kawaguchi, Y. *See* Mizushima & Kawaguchi

Kerr, O. S.
Three-dimensional instabilities of steady double-diffusive interleaving, **418**, 2000, 297–312

Kerr, R. M. & Herring, J. R.
Prandtl number dependence of Nusselt number in direct numerical simulations, **419**, 2000, 325–344

Kerswell, R. R. *See* Barnes & Kerswell

Khakhar, D. V. *See* Fountain, Khakhar, Mezić & Ottino

Khallaf, N. S. A., Parnovski, L. & Vassiliev, D.
Trapped modes in a waveguide with a long obstacle, **403**, 2000, 251–261

Khanin, K. *See* Bec, Frisch & Khanin

Kim, I. & Sirignano, W. A.
Three-dimensional wave distortion and disintegration of thin planar liquid sheets, **410**, 2000, 147–183

Kim, J. *See* Coleman, Kim & Spalart

King, A. C. *See* Cooper, Billingham & King

Kirby, J. T. *See* Gobbi, Kirby & Wei; Svendsen, Veeramony, Bakunin & Kirby

Kirkkopru, K. *See* Zhao, Staab, Kassoy & Kirkkopru

Knight, D., Gnedin, M., Becht, R. & Zheltovodov, A.
Numerical simulation of crossing-shock-wave/turbulent-boundary-layer interaction using a two-equation model of turbulence, **409**, 2000, 121–147

Knobloch, E. *See* Julien, Knobloch & Tobias

Ko, N. W. M. *See* Tang & Ko

Kocabiyik, S. *See* Dennis, Nguyen & Kocabiyik

Koch, W., Bertolotti, F. P., Stolte, A. & Hein, S.
Nonlinear equilibrium solutions in a three-dimensional boundary layer and their secondary instability, **406**, 2000, 131–174

Komarova, N. L. & Hulscher, S. J. M. H.
Linear instability mechanisms for sand wave formation, **413**, 2000, 219–246

Komarova, N. L. & Newell, A. C.
Nonlinear dynamics of sand banks and sand waves, **415**, 2000, 285–321

Komori, S. *See* Nagata & Komori

Korobkin, A. A. & Peregrine, D. H.
The energy distribution resulting from an impact on a floating body, **417**, 2000, 157–181

Koseff, J. R. *See* Shih, Koseff, Ferziger & Rehmann

Kuhlmann, H. C. *See* Leypoldt, Kuhlmann & Rath

Kumar, S. *See* Cadot & Kumar

Kumaran, V. *See* Shankar & Kumaran

Kuo, C.-Y. & Dowling, A. P.
Acoustics of a two-dimensional compact jet impinging normally onto a flat plate, **414**, 2000, 251–284

Kyotoh, H., Fujii, S. & To, D. V.
Currents induced by long waves propagating towards a beach over a wavy bed, **413**, 2000, 317–343

Lahey, R. T. *See* Nigmatulin, Akhatov, Vakhitova & Lahey

Lajeunesse, E. & Couder, Y.
On the tip-splitting instability of viscous fingers, **419**, 2000, 125–149

Lane-Serff, G. F., Smeed, D. A. & Postlethwaite, C. R.
Multi-layer hydraulic exchange flows, **416**, 2000, 269–296

Lang, A. W. & Gharib, M.
Experimental study of the wake behind a surface-piercing cylinder for a clean and contaminated free surface, **402**, 2000, 109–136

Lasheras, J. C. *See* Martínez-Bazán, Montañés & Lasheras; Rightley & Lasheras

Laval, J.-P. *See* Nazarenko & Laval

Leask, R. L. *See* Ethier, Prakash, Steinman, Leask, Couch & Ojha

Leblanc, S.
Destabilization of a vortex by acoustic waves, **414**, 2000, 315–337

Lebovitz, N. R. *See* Biello, Saldanha & Lebovitz

Le Dizès, S.
Non-axisymmetric vortices in two-dimensional flows, **406**, 2000, 175–198

Lee, J.-C. *See* Rusak & Lee

Legros, J. C. *See* Rednikov, Colinet, Velarde & Legros

Leighton, R. I. *See* Hsu, Grega, Leighton & Wei

Lemery, C., Ricard, Y. & Sommeria, J.
A model for the emergence of thermal plumes in Rayleigh–Bénard convection at infinite Prandtl number, **414**, 2000, 225–250

Leu, T.-S. & Ho, C.-M.
Control of global instability in a non-parallel near wake, **404**, 2000, 345–378

Leypoldt, J., Kuhlmann, H. C. & Rath, H. J.
Three-dimensional numerical simulation of thermocapillary flows in cylindrical liquid bridges, **414**, 2000, 285–314

Li, X. *See* Jazayeri & Li

Lin, W. & Armfield, S. W.
Direct simulation of weak axisymmetric fountains in a homogeneous fluid, **403**, 2000, 67–88

Lister, J. R. *See* Eggers, Lister & Stone

Livescu, D., Jaberi, F. A. & Madnia, C. K.

Passive-scalar wake behind a line source in grid turbulence, **416**, 2000, 117–149
Lohse, D. *See* Grossmann & Lohse
Luchini, P.
Reynolds-number-independent instability of the boundary layer over a flat surface: optimal perturbations, **404**, 2000, 289–309
Lücke, M. *See* Huke, Lücke, Büchel & Jung
Lukovsky, I. A. *See* Faltinsen, Rognebakke, Lukovsky & Timokha
Luo, X. Y. & Pedley, T. J.
Multiple solutions and flow limitation in collapsible channel flows, **420**, 2000, 301–324
Lüscher, P. *See* Frei, Lüscher & Wintermantel
Lynov, J. P. *See* Bergeron, Coutsias, Lynov & Nielsen

Ma, X., Karamanos, G.-S. & Karniadakis, G. E.
Dynamics and low-dimensionality of a turbulent near wake, **410**, 2000, 29–65
McBain, G. D.
Fully developed laminar buoyant flow in vertical cavities and ducts of bounded section, **401**, 1999, 365–377
MacManus, D. G. & Eaton, J. A.
Flow physics of discrete boundary layer suction – measurements and predictions, **417**, 2000, 47–75
McWilliams, J. C. *See* Hardenberg, McWilliams, Provenzale, Shchepetkin & Weiss; Sullivan, McWilliams & Moeng
McWilliams, J. C., Weiss, J. B. & Yavneh, I.
The vortices of homogeneous geostrophic turbulence, **401**, 1999, 1–26
Madnia, C. K. *See* Livescu, Jaberi & Madnia
Makin, V. K. *See* Meirink & Makin
Maldarelli, C. *See* Chauhan, Maldarelli, Papageorgiou & Rumschitzki
Mangiavacchi, N. *See* Akhavan, Ansari, Kang & Mangiavacchi
Marques, F. *See* Meseguer & Marques
Martin, Ph. A. *See* Frachebourg & Martin
Martínez-Bazán, C., Montañés, J. L. & Lasheras, J. C.
On the breakup of an air bubble injected into a fully developed turbulent flow. Part 1. Breakup frequency, **401**, 1999, 157–182
On the breakup of an air bubble injected into a fully developed turbulent flow. Part 2. Size PDF of the resulting daughter bubbles, **401**, 1999, 183–207
Marty, Ph. *See* Alemany, Marty, Plunian & Soto
Mashayek, F.
Numerical investigation of reacting droplets in homogeneous shear turbulence, **405**, 2000, 1–36
Maslov, A. A. *See* Mironov & Maslov
Masud, J. *See* Kamotani, Ostrach & Masud
Matalon, M. *See* Cheatham & Matalon
Matthews, P. C. *See* Cox & Matthews; Rucklidge, Weiss, Brownjohn, Matthews & Proctor
Mei, C. C. *See* Yu & Mei
Meiburg, E. *See* Camhi, Meiburg & Ruith; Härtel, Meiburg & Necker; Ruith & Meiburg
Meirink, J. F. & Makin, V. K.
Modelling low-Reynolds-number effects in the turbulent air flow over water waves, **415**, 2000, 155–174
Meiron, D. I., Moore, D. W. & Pullin, D. I.
On steady compressible flows with compact vorticity; the compressible Stuart vortex, **409**, 2000, 29–49
Meneveau, C. *See* Porté-Agel, Meneveau & Parlange
Meseguer, A. & Marques, F.
On the competition between centrifugal and shear instability in spiral Couette flow, **402**, 2000, 33–56
Mestel, A. J. *See* Blyth & Mestel
Mezić, I. *See* Fountain, Khakhar, Mezić & Ottino
Miller, K. *See* Elcrat, Fornberg, Horn & Miller
Min, C. & Choi, H.
Suboptimal feedback control of vortex shedding at low Reynolds numbers, **401**, 1999, 123–156
Minkov, E., Ungarish, M. & Israeli, M.
The motion generated by a rising particle in a rotating fluid – numerical solutions. Part 1. A short container, **413**, 2000, 111–148
Mironov, S. G. & Maslov, A. A.
Experimental study of secondary instability in a hypersonic shock layer on a flat plate, **412**, 2000, 259–277
Miyazaki, T. & Hunt, J. C. R.
Linear and nonlinear interactions between a columnar vortex and external turbulence, **402**, 2000, 349–378
Mizushima, J. & Kawaguchi, Y.
Transitions of flow past a row of square bars, **405**, 2000, 305–323
Mizushima, J. & Shiotani, Y.
Structural instability of the bifurcation diagram for two-dimensional flow in a channel with a sudden expansion, **420**, 2000, 131–145
Moeng, C.-H. *See* Sullivan, McWilliams & Moeng
Moffatt, H. K.
The interaction of skewed vortex pairs: a model for blow-up of the Navier–Stokes equations, **409**, 2000, 51–68
See also Fukumoto & Moffatt; Hills & Moffatt

Möhring, W. *See* Ffowcs Williams & Möhring
Montañés, J. L. *See* Martínez-Bazán, Montañés & Lasheras
Moore, D. W. *See* Meiron, Moore & Pullin
Morales Maqueda, M. A. *See* Biggs, Morales Maqueda & Willmott
Moresco, P. & Healey, J. J.
Spatio–temporal instability in mixed convection boundary layers, **402**, 2000, 89–107
Mori, Y. H. *See* Kato, Iida & Mori
Morris, S. J. S.
A phenomenological model for the contact region of an evaporating meniscus on a superheated slab, **411**, 2000, 59–89
Mortazavi, S. & Tryggvason, G.
A numerical study of the motion of drops in Poiseuille flow. Part 1. Lateral migration of one drop, **411**, 2000, 325–350
Moschetta, J.-M. *See* Robinet, Gressier, Casalis & Moschetta
Moser, R. D. *See* Guarini, Moser, Shariff & Wray
Mück, B., Günther, C., Müller, U. & Bühler, L.
Three-dimensional MHD flows in rectangular ducts with internal obstacles, **418**, 2000, 265–295
Müller, U. *See* Burr, Barleon, Müller & Tsinober; Mück, Günther, Müller & Bühler
Mussa, A. I. *See* Jones, Soward & Mussa

Nagata, K. & Komori, S.
The effects of unstable stratification and mean shear on the chemical reaction in grid turbulence, **408**, 2000, 39–52
Nagata, M. *See* Wall & Nagata
Narasimha, R. *See* Govindarajan & Narasimha
Nazarenko, S. & Laval, J.-P.
Non-local two-dimensional turbulence and Batchelor's regime for passive scalars, **408**, 2000, 301–321
Necker, F. *See* Härtel, Meiburg & Necker
Newell, A. C. *See* Komarova & Newell
Nguyen, P. *See* Dennis, Nguyen & Kocabiyik
Nickels, T. B. & Joubert, P. N.
The mean velocity profile of turbulent boundary layers with system rotation, **408**, 2000, 323–345
Nicolás, J. A. & Vega, J. M.
A note on the effect of surface contamination in water wave damping, **410**, 2000, 367–373
Nicolleau, F. & Vassilicos, J. C.
Turbulent diffusion in stably stratified non-decaying turbulence, **410**, 2000, 123–146
Nielsen, A. H. *See* Bergeron, Coutsias, Lynov & Nielsen
Nigmatulin, R. I., Akhatov, I. Sh., Vakhitova, N. K. & Lahey, R. T.
On the forced oscillations of a small gas bubble in a spherical liquid-filled flask, **414**, 2000, 47–73
Nishimura, K. & Hunt, J. C. R.
Saltation and incipient suspension above a flat particle bed below a turbulent boundary layer, **417**, 2000, 77–102
Nott, P. R. *See* Singh & Nott

Ochoa, J. *See* Torres, Hanazaki, Ochoa, Castillo & Van Woert
Oğuz, H. N. *See* Zhu, Ogüz & Prosperetti
Ojha, M. *See* Ethier, Prakash, Steinman, Leask, Couch & Ojha
Olivier, H.
A theoretical model for the shock stand-off distance in frozen and equilibrium flows, **413**, 2000, 345–353
Orszag, S. A. *See* Tomboulides & Orszag
Ostrach, S. *See* Kamotani, Ostrach & Masud
Ostrovsky, L. A. *See* Gorshkov, Ostrovsky & Soustova
Ottino, J. M. *See* Fountain, Khakhar, Mezić & Ottino

Page, M. A. & Johnson, E. R.
Wavefields forced by long obstacles on a beta-plane, **406**, 2000, 221–245
Païdoussis, M. P. *See* Sumner, Price & Païdoussis
Pal, D. *See* Prasad, Pal & Römkens
Panzarella, C. H., Davis, S. H. & Bankoff, S. G.
Nonlinear dynamics in horizontal film boiling, **402**, 2000, 163–194
Papageorgiou, D. T. *See* Chauhan, Maldarelli, Papageorgiou & Rumschitzki
Parker, G. *See* Izumi & Parker
Parker, G. & Izumi, N.
Purely erosional cyclic and solitary steps created by flow over a cohesive bed, **419**, 2000, 203–238
Parlange, M. B. *See* Porté-Agel, Meneveau & Parlange
Parnovski, L. *See* Khallaf, Parnovski & Vassiliev
Pavía, E. G. *See* Pinet & Pavía
Peake, N. *See* Cooper & Peake; Evers & Peake
Pedley, T. J. *See* Davis & Pedley; Luo & Pedley
Pedrizzetti, G. & Vassilicos, J. C.
Interscale transfer in two-dimensional compact vortices, **406**, 2000, 109–129
Peltier, W. R. *See* Caulfield & Peltier
Peregrine, D. H. *See* Korobkin & Peregrine
Phan-Thien, N. *See* Fan, Tanner & Phan-Thien
Phares, D. J., Smedley, G. T. & Flagan, R. C.
The wall shear stress produced by the normal impingement of a jet on a flat surface, **418**, 2000, 351–375
Pinet, R. & Pavía, E. G.

Stability of elliptical horizontally inhomogeneous rodons, **416**, 2000, 29–43
Plunian, F. *See* Alemany, Marty, Plunian & Soto
Pope, S. B. *See* Jaberi, Colucci, James, Givi & Pope
Porté-Agel, F., Meneveau, C. & Parlange, M. B.
A scale-dependent dynamic model for large-eddy simulation: application to a neutral atmospheric boundary layer, **415**, 2000, 261–284
Porter, D. *See* Porter & Porter
Porter, R. & Porter, D.
Water wave scattering by a step of arbitrary profile, **411**, 2000, 131–164
Postlethwaite, C. R. *See* Lane-Serff, Smeed & Postlethwaite
Pozrikidis, C.
Instability of two annular layers or a liquid thread bounded by an elastic membrane, **405**, 2000, 211–241
See also Wright, Yon & Pozrikidis
Prakash, S. *See* Ethier, Prakash, Steinman, Leask, Couch & Ojha
Prasad, S. N., Pal, D. & Römkens, M. J. M.
Wave formation on a shallow layer of flowing grains, **413**, 2000, 89–110
Pratt, L. J., Helfrich, K. R. & Chassignet, E. P.
Hydraulic adjustment to an obstacle in a rotating channel, **404**, 2000, 117–149
Price, S. J. *See* Sumner, Price & Païdoussis
Priede, J. & Gerbeth, G.
Hydrothermal wave instability of thermocapillary-driven convection in a transverse magnetic field, **404**, 2000, 211–250
Proctor, M. R. E. *See* Rucklidge, Weiss, Brownjohn, Matthews & Proctor
Prosperetti, A. *See* Zhu, Oğuz & Prosperetti
Prostokishin, V. M. *See* Barenblatt, Chorin & Prostokishin
Provenzale, A. *See* Hardenberg, McWilliams, Provenzale, Shchepetkin & Weiss
Pullin, D. I. *See* Meiron, Moore & Pullin

Rath, H. J. *See* Leypoldt, Kuhlmann & Rath
Reade, W. C. & Collins, L. R.
A numerical study of the particle size distribution of an aerosol undergoing turbulent coagulation, **415**, 2000, 45–64
Rednikov, A. Ye., Colinet, P., Velarde, M. G. & Legros, J. C.
Rayleigh–Marangoni oscillatory instability in a horizontal liquid layer heated from above: coupling and mode mixing of internal and surface dilational waves, **405**, 2000, 57–77
Reed, H. L. *See* Haynes & Reed
Rehmann, C. R. *See* Shih, Koseff, Ferziger & Rehmann
Ricard, Y. *See* Lemery, Ricard & Sommeria
Richardson, G.
Vortex motion in shallow water with varying bottom topography and zero Froude number, **411**, 2000, 351–374
Rightley, P. M. & Lasheras, J. C.
Bubble dispersion and interphase coupling in a free-shear flow, **412**, 2000, 21–59
Ripa, P.
Baroclinic instability in a reduced-gravity, three-dimensional, quasi-geostrophic model, **403**, 2000, 1–22
Roberts, G. T. *See* Amaratunga, Tutty & Roberts
Roberts, P. H. *See* Jones & Roberts
Roberts, P. H. & Zhang, K.
Thermal generation of Alfvén waves in oscillatory magnetoconvection, **420**, 2000, 201–223
Robinet, J.-Ch., Gressier, J., Casalis, G. & Moschetta, J.-M.
Shock wave instability and the carbuncle phenomenon: same intrinsic origin?, **417**, 2000, 237–263
Rogerson, M. A. & Cardoso, S. S. S.
Patterns of bubble desorption during the solidification of a multi-component melt, **419**, 2000, 263–282
Rognebakke, O. F. *See* Faltinsen, Rognebakke, Lukovsky & Timokha
Römkens, M. J. M. *See* Prasad, Pal & Römkens
Roux, S. *See* Abou, Wesfreid & Roux
Ruban, A. I. *See* Buldakov, Chernyshenko & Ruban
Rucklidge, A. M., Weiss, N. O., Brownjohn, D. P., Matthews, P. C. & Proctor, M. R. E.
Compressible magnetoconvection in three dimensions: pattern formation in a strongly stratified layer, **419**, 2000, 283–323
Ruith, M. *See* Camhi, Meiburg & Ruith
Ruith, M. & Meiburg, E.
Miscible rectilinear displacements with gravity override. Part 1. Homogeneous porous medium, **420**, 2000, 225–257
Rumschitzki, D. S. *See* Chauhan, Maldarelli, Papageorgiou & Rumschitzki
Rusak, Z. & Lee, J.-C.
Transonic flow of moist air around a thin airfoil with non-equilibrium and homogeneous condensation, **403**, 2000, 173–199
Rusås, P.-O. *See* Grue, Jensen, Rusås & Sveen

Saldanha, K. I. *See* Biello, Saldanha & Lebovitz
Salzig, J. *See* Balmforth, Burbidge, Craster, Salzig & Shen
Sandham, N. D. *See* Alam & Sandham
Saville, D. A. *See* Burcham & Saville
Scandura, P., Vittori, G. & Blondeaux, P.

Three-dimensional oscillatory flow over steep ripples, **412**, 2000, 355–378
Seim, H. E. *See* Winters & Seim
Shankar, V. & Kumaran, V.
Stability of fluid flow in a flexible tube to non-axisymmetric disturbances, **407**, 2000, 291–314
Shariff, K. *See* Guarini, Moser, Shariff & Wray
Sharpe, G. J.
Linear stability of pathological detonations, **401**, 1999, 311–338
Sharpe, G. J. & Falle, S. A. E. G.
One-dimensional nonlinear stability of pathological detonations, **414**, 2000, 339–366
Shchepetkin, A. *See* Hardenberg, McWilliams, Provenzale, Shchepetkin & Weiss
Shen, A. *See* Balmforth, Burbidge, Craster, Salzig & Shen
Shen, L., Triantafyllou, G. S. & Yue, D. K. P.
Turbulent diffusion near a free surface, **407**, 2000, 145–166
Shih, L. H., Koseff, J. R., Ferziger, J. H. & Rehmann, C. R.
Scaling and parameterization of stratified homogeneous turbulent shear flow, **412**, 2000, 1–20
Shiotani, Y. *See* Mizushima & Shiotani
Shusser, M. & Gharib, M.
A model for vortex ring formation in a starting buoyant plume, **416**, 2000, 173–185
Sidi, C. *See* Alisse & Sidi
Siegel, M.
Cusp formation for time-evolving bubbles in two-dimensional Stokes flow, **412**, 2000, 227–257
Singh, A. & Nott, P. R.
Normal stresses and microstructure in bounded shear of suspensions via Stokesian dynamics simulations, **412**, 2000, 279–301
Sirignano, W. A. *See* Kim & Sirignano
Skews, B. W.
Three-dimensional effects in wind tunnel studies of shock wave reflection, **407**, 2000, 85–104
Slessor, M. D., Zhuang, M. & Dimotakis, P. E.
Turbulent shear-layer mixing: growth-rate compressibility scaling, **414**, 2000, 35–45
Smedley, G. T. *See* Phares, Smedley & Flagan
Smeed, D. A. *See* Lane-Serff, Smeed & Postlethwaite
Smirnov, N. N. *See* Ivashnyov, Ivashneva & Smirnov
Smith, F. T. *See* Bowles & Smith
Smith, R. B. *See* Jiang & Smith
Smyth, W. D.
Dissipation-range geometry and scalar spectra in sheared stratified turbulence, **401**, 1999, 209–242
Snyder, W. H. *See* Thompson, Snyder & Weil
Sommeria, J. *See* Lemery, Ricard & Sommeria
Sørensen, J. N. *See* Brøns, Voigt & Sørensen
Soto, J. *See* Alemany, Marty, Plunian & Soto
Soustova, I. A. *See* Gorshkov, Ostrovsky & Soustova
Soward, A. M. *See* Jones, Soward & Mussa
Soward, A. M. & Hollerbach, R.
Non-axisymmetric magnetohydrodynamic shear layers in a rotating spherical shell, **408**, 2000, 239–274
Spalart, P. R. *See* Coleman, Kim & Spalart
Spalart, P. R. & Strelets, M. Kh.
Mechanisms of transition and heat transfer in a separation bubble, **403**, 2000, 329–349
Speziale, C. G., Younis, B. A. & Berger, S. A.
Analysis and modelling of turbulent flow in an axially rotating pipe, **407**, 2000, 1–26
Squires, K. D. *See* Wu & Squires
Sreenivasan, K. R. & White, C. M.
The onset of drag reduction by dilute polymer additives, and the maximum drag reduction asymptote, **409**, 2000, 149–164
Srinivasan, J. *See* Arakeri, Das & Srinivasan
Staab, P. L. *See* Zhao, Staab, Kassoy & Kirkkopru
Stein, J. *See* Gheusi, Stein & Eiff
Steinman, D. A. *See* Ethier, Prakash, Steinman, Leask, Couch & Ojha
Stern, M. E.
Scattering of an eddy advected by a current towards a topographic obstacle, **402**, 2000, 211–223
Stolte, A. *See* Koch, Bertolotti, Stolte & Hein
Stone, H. A.
Philip Saffman and viscous flow theory, **409**, 2000, 165–183
See also Day & Stone; Eggers, Lister & Stone
Strelets, M. Kh. *See* Spalart & Strelets
Stremler, M. A. *See* Boyland, Aref & Stremler
Sullivan, P. P., McWilliams, J. C. & Moeng, C.-H.
Simulation of turbulent flow over idealized water waves, **404**, 2000, 47–85
Sumner, D., Price, S. J. & Païdoussis, M. P.
Flow-pattern identification for two staggered circular cylinders in cross-flow, **411**, 2000, 263–303
Sung, H. J. *See* Baek & Sung
Sveen, J. K. *See* Grue, Jensen, Rusås & Sveen
Svendsen, I. A., Veeramony, J., Bakunin, J. & Kirby, J. T.
The flow in weak turbulent hydraulic jumps, **418**, 2000, 25–57
Swaters, G. E. *See* Choboter & Swaters; Karsten & Swaters

Tacina, K. M. & Dahm, W. J. A.
Effects of heat release on turbulent shear flows. Part 1. A general equivalence principle for non-buoyant flows and its ap-

plication to turbulent jet flames, **415**, 2000, 23–44

Tang, S. K. & Ko, N. W. M.
Sound sources in the interactions of two inviscid two-dimensional vortex pairs, **419**, 2000, 177–201

Tanner, R. I. *See* Fan, Tanner & Phan-Thien

Tanveer, S.
Surprises in viscous fingering, **409**, 2000, 273–308

Thomas, F. O. *See* Gordeyev & Thomas

Thompson, R. S., Snyder, W. H. & Weil, J. C.
Laboratory simulation of the rise of buoyant thermals created by open detonation, **417**, 2000, 127–156

Thunblom, M. *See* Härtel, Carlsson & Thunblom

Timokha, A. N. *See* Faltinsen, Rognebakke, Lukovsky & Timokha

To, D. V. *See* Kyotoh, Fujii & To

Tobias, S. M. *See* Julien, Knobloch & Tobias

Tomboulides, A. G. & Orszag, S. A.
Numerical investigation of transitional and weak turbulent flow past a sphere, **416**, 2000, 45–73

Tong, P. *See* Du & Tong

Torres, C. R., Hanazaki, H., Ochoa, J., Castillo, J. & Van Woert, M.
Flow past a sphere moving vertically in a stratified diffusive fluid, **417**, 2000, 211–236

Triantafyllou, G. S. *See* Shen, Triantafyllou & Yue

Tryggvason, G. *See* Mortazavi & Tryggvason

Tsinober, A. *See* Burr, Barleon, Müller & Tsinober

Tsuda, A. *See* Haber, Butler, Brenner, Emanuel & Tsuda

Tulin, M. P. *See* Waseda & Tulin

Tumin, A. *See* Han, Tumin & Wygnanski

Turner, J. S. & Veronis, G.
Laboratory studies of double-diffusive sources in closed regions, **405**, 2000, 269–304

Turner, L.
Using helicity to characterize homogeneous and inhomogeneous turbulent dynamics, **408**, 2000, 205–238

Tutty, O. R. *See* Amaratunga, Tutty & Roberts

Ulitsky, M. & Collins, L. R.
On constructing realizable, conservative mixed scalar equations using the eddy-damped quasi-normal Markovian theory, **412**, 2000, 303–329

Ungarish, M. *See* Minkov, Ungarish & Israeli

Ungarish, M. & Huppert, H. E.
High-Reynolds-number gravity currents over a porous boundary: shallow-water solutions and box-model approximations, **418**, 2000, 1–23

Vakhitova, N. K. *See* Nigmatulin, Akhatov, Vakhitova & Lahey

Van Woert, M. *See* Torres, Hanazaki, Ochoa, Castillo & Van Woert

Vanneste, J.
Enhanced dissipation for quasi-geostrophic motion over small-scale topography, **407**, 2000, 105–122

Vanneste, J. & Haynes, P. H.
Intermittent mixing in strongly stratified fluids as a random walk, **411**, 2000, 165–185

Vassilicos, J. C. *See* Flohr & Vassilicos; Nicolleau & Vassilicos; Pedrizzetti & Vassilicos

Vassiliev, D. *See* Khallaf, Parnovski & Vassiliev

Veeramony, J. *See* Svendsen, Veeramony, Bakunin & Kirby

Vega, J. M. *See* Nicolás & Vega

Velarde, M. G. *See* Rednikov, Colinet, Velarde & Legros

Veronis, G. *See* Turner & Veronis

Vervisch, L. *See* Ghosal & Vervisch

Vittori, G. *See* Scandura, Vittori & Blondeaux

Voigt, L. K. *See* Brøns, Voigt & Sørensen

Walker, D. T. *See* Hong & Walker

Wall, D. P. & Nagata, M.
Nonlinear equilibrium solutions for the channel flow of fluid with temperature-dependent viscosity, **406**, 2000, 1–26

Wallin, S. & Johansson, A. V.
An explicit algebraic Reynolds stress model for incompressible and compressible turbulent flows, **403**, 2000, 89–132

Wang, L.-P., Wexler, A. S. & Zhou, Y.
Statistical mechanical description and modelling of turbulent collision of inertial particles, **415**, 2000, 117–153

Wang, Z. J.
Vortex shedding and frequency selection in flapping flight, **410**, 2000, 323–341

Waseda, T. & Tulin, M. P.
Experimental study of the stability of deep-water wave trains including wind effects, **401**, 1999, 55–84

Waters, S. L. *See* Howell, Waters & Grotberg

Wei, G. *See* Gobbi, Kirby & Wei

Wei, T. *See* Hsu, Grega, Leighton & Wei

Weichman, P. B. & Glazman, R. E.
Passive scalar transport by travelling wave fields, **420**, 2000, 147–200

Weil, J. C. *See* Thompson, Snyder & Weil

Weiss, J. B. *See* Hardenberg, McWilliams, Provenzale, Shchepetkin & Weiss; McWilliams, Weiss & Yavneh

Weiss, N. O. *See* Rucklidge, Weiss, Brownjohn, Matthews & Proctor

Wesfreid, J.-E. *See* Abou, Wesfreid & Roux

Wexler, A. S. *See* Wang, Wexler & Zhou

White, C. M. *See* Sreenivasan & White

Williamson, C. H. K. *See* Govardhan & Williamson
Willmott, A. J. *See* Biggs, Morales Maqueda & Willmott
Wilson, S. K., Hunt, R. & Duffy, B. R.
The rate of spreading in spin coating, **413**, 2000, 65–88
Wintermantel, E. *See* Frei, Lüscher & Wintermantel
Winters, K. B. *See* Ivey, Winters & De Silva
Winters, K. B. & Seim, H. E.
The role of dissipation and mixing in exchange flow through a contracting channel, **407**, 2000, 265–290
Woods, A. W. *See* Gladstone & Woods; Hatcher, Hogg & Woods
Wray, A. *See* Guarini, Moser, Shariff & Wray
Wright, J., Yon, S. & Pozrikidis, C.
Numerical studies of two-dimensional Faraday oscillations of inviscid fluids, **402**, 2000, 1–32
Wu, X. & Squires, K. D.
Prediction and investigation of the turbulent flow over a rotating disk, **418**, 2000, 231–264
Wygnanski, I. *See* Han, Tumin & Wygnanski

Yamamoto, K. J. *See* Guo, Joshi, Bent & Yamamoto
Yang, S.-M. *See* Ha & Yang
Yavneh, I. *See* McWilliams, Weiss & Yavneh
Yon, S. *See* Wright, Yon & Pozrikidis
Younis, B. A. *See* Speziale, Younis & Berger
Yu, J. & Mei, C. C.
Do longshore bars shelter the shore?, **404**, 2000, 251–268
Formation of sand bars under surface waves, **416**, 2000, 315–348
Yue, D. K. P. *See* Shen, Triantafyllou & Yue

Zavala Sansón, L. & Heijst, G. J. F. van
Nonlinear Ekman effects in rotating barotropic flows, **412**, 2000, 75–91
Zhang, H. & Ahmadi, G.
Aerosol particle transport and deposition in vertical and horizontal turbulent duct flows, **406**, 2000, 55–80
Zhang, K. *See* Roberts & Zhang
Zhao, Q., Staab, P. L., Kassoy, D. R. & Kirkkopru, K.
Acoustically generated vorticity in an internal flow, **413**, 2000, 247–285
Zheltovodov, A. *See* Knight, Gnedin, Becht & Zheltovodov
Zhou, T. & Antonia, R. A.
Reynolds number dependence of the small-scale structure of grid turbulence, **406**, 2000, 81–107
Zhou, Y. *See* Wang, Wexler & Zhou
Zhu, Y., Oğuz, H. N. & Prosperetti, A.
On the mechanism of air entrainment by liquid jets at a free surface, **404**, 2000, 151–177
Zhuang, M. *See* Slessor, Zhuang & Dimotakis

INDEX OF BOOK REVIEWS

The name of the reviewer is given in parentheses

BUSTOS, M. C., CONCHA, F., BURGUR, R. & TORY, E. M. *Sedimentation and Thickening – Phenomenological Foundation and Mathematical Theory*. Kluwer, 1999. (R. H. DAVIS) **418**, 2000, 377.

CHATE, H., VILLERMAUX, E. & CHOMAZ, J.-M. (Eds.) *Mixing: Chaos and Turbulence*. Kluwer, 1999. (SHORT NOTICE) **410**, 2000, 377.

DURAN, J. *Sands, Powders and Grains: An Introduction to the Physics of Granular Materials*. Springer, 2000. (J. M. OTTINO) **419**, 2000, 345.

FULFORD, G., FORRESTER, P. & JONES, A. *Modelling with Differential and Difference Equations*. Cambridge University Press, 1997. (H. A. STONE) **408**, 2000, 346.

GRESHO, P. M. & SANI, R. L. *Incompressible Flow and the Finite Element Method, Vol 1: Advection-Diffusion and Isothermal Laminar Flow*. John Wiley & Sons, 1998. (R. KEUNINGS) **411**, 2000, 378.

GYR, A., KINZELBACH, W. & TSINOBER, A. (Eds.) *Fundamental Problematic Issues in Turbulence*. Birkhauser, 1999. (SHORT NOTICE) **410**, 2000, 377.

JIANG, B. *The Least-Squares Finite Element Method – Theory and Applications in Computational Fluid Dynamics and Electromagnetics*. Springer, 1998. (R. KEUNINGS) **411**, 2000, 376.

LUKASZEWICZ, G. *Micropolar Fluids: Theory and Applications*. Birkhauser, 1999. (SHORT NOTICE) **401**, 1999, 380.

LUMLEY, J. L., VAN DYKE, M. & REED, H. L. *Annual Reviews of Fluid Mechanics, vol. 32*. Annual Reviews Inc, 2000. (SHORT NOTICE) **415**, 2000, 346.

MESTEL, L. *Stellar Magnetism*. Oxford University Press, 1999. (E. R. PRIEST) **410**, 2000, 374.

MUTEL, C. F. *Flowing Through Time: A History of the Iowa Institute of Hydraulic Research*. IIHR, 1998. (SHORT NOTICE) **401**, 1999, 380.

OCKENDON, J., HOWISON, S., LACEY, A. & MOVCHAN, A. *Applied Partial Differential Equations*. Oxford University Press, 1999. (J. R. LISTER) **411**, 2000, 375.

PANFILOV, M. *Theory and Applications of Transport in Porous Media*. Kluwer, 2000. (J. R. A. PEARSON) **418**, 2000, 376.

PIQUET, J. *Turbulent Flows: Models and Physics*. Springer, 1999. (P. A. DURBIN) **410**, 2000, 375.

RISTOW, G. H. *Pattern Formation in Granular Materials*. Springer, 2000. (J. M. OTTINO) **419**, 2000, 345.

SAJJADI, S. G., THOMAS, N. H. & HUNT, J. C. R. (Eds.) *Wind-over-Wave Couplings*. Oxford University Press, 1999. (SHORT NOTICE) **410**, 2000, 377.

SCHLICHTING, H. & GERSTEN, K. *Boundary Layer Theory, 8th Edn*. Springer, 2000. (S. N. BROWN) **415**, 2000, 346.

SERRE, D. *Systems of Conservation Laws 1: Hyperbolicity, Entropies, Shock Waves*. Cambridge University Press, 1999. (T. J. BRIDGES) **401**, 1999, 378.

SHUGAEV, F. V. & SHTEMENKO, L. S. *Propagation and Reflection of Shock Waves*. World Scientific, 1997. (SHORT NOTICE) **401**, 1999, 380.

VIOLLET, P. L., CHABARD, J. P., ESPOSITO, P. & LAURENCE, D. *Mécanique des Fluides Appliquée*. Presse des Ponts et Chaussées, 1998. (J. PIQUET) **413**, 2000, 379.

WARNATZ, J., MAAS, U. & DIBBLE, R. W. *Combustion: Physical and Chemical Fundamentals, Modeling and Simulation, Experiments, Pollutant Formation, 2nd Edn*. Springer, 1999. (SHORT NOTICE) **401**, 1999, 380.